



DECADAL SURVEY FOR EARTH SCIENCE AND APPLICATIONS FROM SPACE (ESAS 2017)

The 2017-2027 Decadal Survey for Earth Science and Applications from Space (ESAS 2017) will help shape science priorities and guide agency investments into the next decade. The survey, sponsored by NASA, NOAA, and the USGS, is driven by input from the scientific community and policy experts.



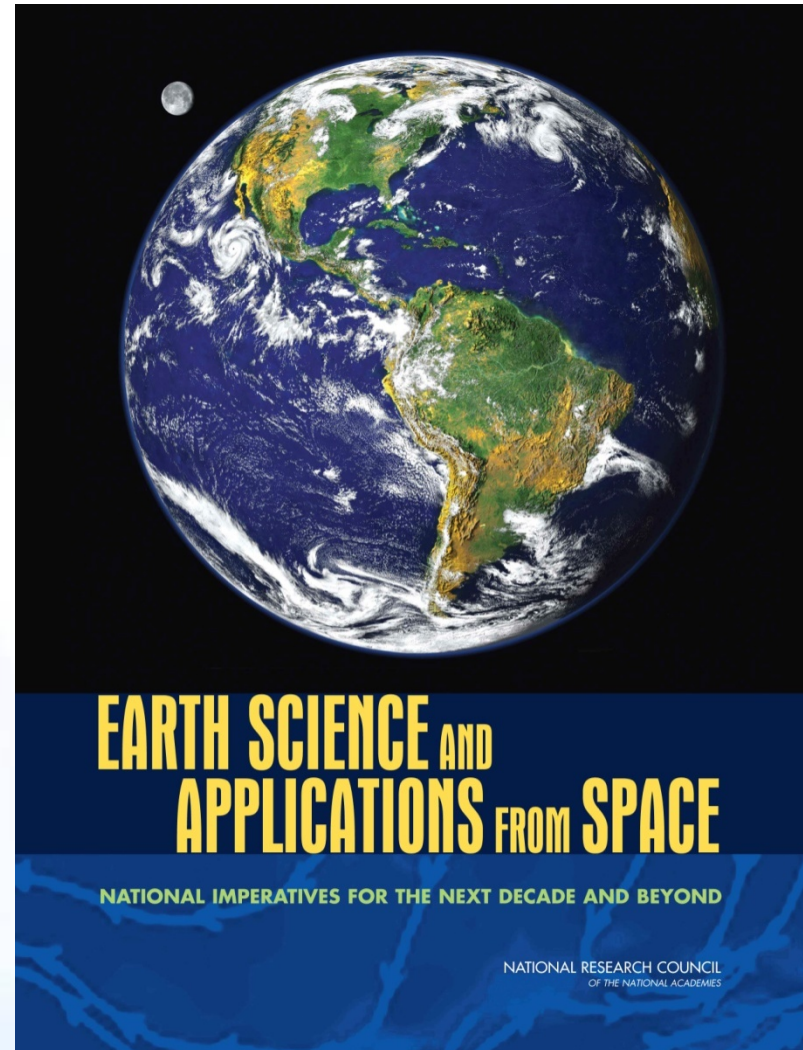
History: 2007 Decadal Survey

The first decadal survey for Earth Science and Applications from Space presented a strategy for Earth and environmental observations in the period of 2005-2015 and beyond, including a prioritized list of space programs, missions, and supporting activities to address key scientific questions.

Recommendation Examples:

ICESat2 (Ice, Cloud, and land Elevation Satellite) mission for measuring ice sheet mass balance, cloud and aerosol heights, land topography and vegetation; scheduled launch 2017.

SMAP (Soil Moisture Active Passive) mission for observing the amount of water in soil; launched January 2015.



<http://www.nap.edu/catalog/11820/earth-science-and-applications-from-space-national-imperatives-for-the>



Request for Information # 1

Community White Papers are Posted (over 200)

Accepted through January 4, 2016. The submitted white papers are available for public viewing. http://sites.nationalacademies.org/DEPS/esas2017/DEPS_170917

Nominations

The decadal survey relies on the help of nearly 100 scientists, engineers, and policy experts who volunteer their time to serve on study panels or the steering committee. Submissions were accepted through January 4, 2016.

Watch the Town Hall Webcast recorded during the American Meteorological Society meeting on January 13, 2016.

<https://www.youtube.com/watch?v=OchGu6oXu8E>

First Meeting of the 21 member ESAS **Steering Committee** held on January 18-20, 2016 in Washington, DC. Presentations from the meeting are posted.

***Appointments to the study panels will be announced in early 2016.**

Community Input and White Papers: ESAS 2017 Request for Information (RFI #2)

February 18, 2016: Building on RFI #1, the committee now requests ideas for specific science and applications targets (i.e., objectives) that promise to substantially advance understanding in one or more of the Earth System Science themes:

I. Global Hydrological Cycles and Water Resources

The movement, distribution, and availability of water and how these are changing over time

II. Weather and Air Quality: Minutes to Subseasonal

Atmospheric Dynamics, Thermodynamics, Chemistry, and their interactions at land and ocean interfaces

III. Marine and Terrestrial Ecosystems and Natural Resource Management

Biogeochemical Cycles, Ecosystem Functioning, Biodiversity, and factors that influence health and ecosystem services

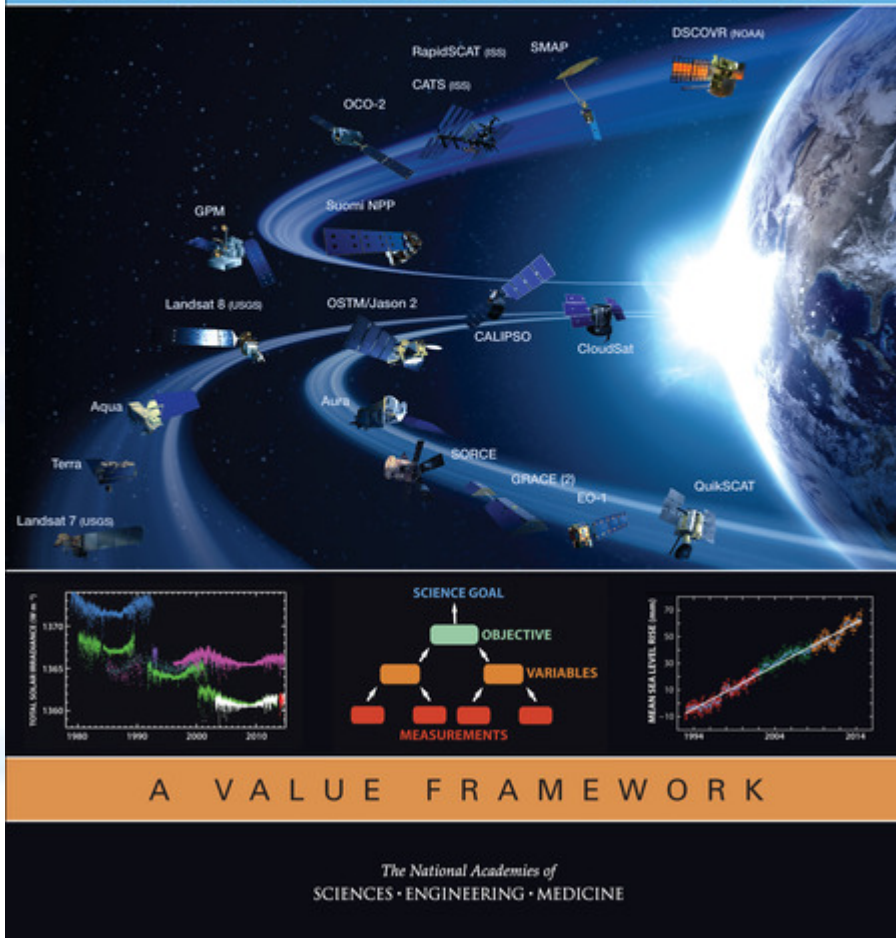
IV. Climate Variability and Change: Seasonal to Centennial

Forcings and Feedbacks of the Ocean, Atmosphere, Land, and Cryosphere within the Coupled Climate System

V. Earth Surface and Interior: Dynamics and Hazards

Core, mantle, lithosphere, and surface processes, system interactions, and the hazards they generate

CONTINUITY OF NASA EARTH OBSERVATIONS FROM SPACE



Continuity of NASA Earth Observations from Space:

A Value Framework (2015)

<http://www.nap.edu/catalog/21789/continuity-of-nasa-earth-observations-from-space-a-value-framework>



COMMITTEE MEMBERS

Waleed Abdalati, *Co-Chair*, University of Colorado, Boulder

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Stacey Boland, Jet Propulsion Laboratory

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William Dietrich, University of California, Berkeley

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Christopher Field, Carnegie Institution for Science

Helen Fricker, Scripps Institution of Oceanography

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